STATEMENT OF BASIS

Baton Rouge Chemical Plant
Maintrain Ethylene Production Facilities
ExxonMobil Chemical Company
Baton Rouge, East Baton Rouge Parish, Louisiana
Agency Interest Number: 286
Activity Number: 20080005
Proposed Permit 2031-V7

I. APPLICANT:

Company:
ExxonMobil Chemical Company
P.O. Box 241, Baton Rouge, LA 70821

Facility:
Baton Rouge Chemical Plant
4999 Scenic Highway, Baton Rouge, East Baton Rouge Parish, Louisiana 70805
Approximate UTM coordinates are 675.70 kilometers East and 3374.85 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS:

The ExxonMobil Baton Rouge Complex was established in 1909. Manufacturing operations have been ongoing continuously at the site since that time. The ExxonMobil Chemical Company Baton Rouge Chemical Plant (BRCP) was founded in 1940 and played an important role in producing synthetic rubber for the military during World War II. It is now one of four ExxonMobil chemical manufacturing facilities in the Baton Rouge area. The Plant also has several manufacturing units that are located within the adjacent Refinery.

The site manufactures a variety of first generation petrochemical products used by others to produce a variety of consumer products. Feeds come primarily from the adjacent ExxonMobil Refinery, although feedstocks are also purchased from outside suppliers and delivered by tanker or barge.

The facility received all its Part 70 permits for the entire facility. The following table lists all of the other units at BRCP and their permitted status:

Unit	Permit No.	Date Issued	Permitting Status
Aromatics	2299-V5	7/18/2008	Received Title V
AWT	3006-V0	6/6/2006	Received Title V
AWT Thermal Combustor	1977-V0	10/19/2003	Received Title V
BRTG	2012-V0	11/18/2002	Received Title V
Coproducts	2367-V0	2/17/2006	Received Title V
E-1000	2156-V0	7/3/2003	Received Title V
E-5000	1911-V1	12/12/2006	Received Title V

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Unit	Permit No.	Date Issued	Permitting Status
Halobutyl Production	2166-V1	7/16/2004	Received Title V
HCD	2314-V0	2/27/2006	Received Title V
IPA	1924-V2	9/27/2005	Received Title V
MEK/SBA	2281-V1	11/19/2007	Received Title V
Neo Acids	2379-V0	12/2/2005	Received Title V
NOVA Units	2123 –V0	5/8/2006	Received Title V
OXO Alcohol	2365-V1	9/15/2006	Received Title V
OXO Tankfield	2393-V0	9/11/2005	Received Title V
PALA	1200-V2	7/16/2004	Received Title V
Plant Infrastructure	2390-V0	1/26/2006	Received Title V
Plasticizer	2320-V0	12/20/2005	Received Title V
POX	2210-V0	4/4/2005	Received Title V
RGR	2361-V1	8/15/2006	Received Title V
VISTALON	2376-V1	8/13/2008	Received Title V
#5 LE/Poly	2396-V0	10/31/2005	Received Title V

III. PROPOSED PERMIT / PROJECT INFORMATION:

Proposed Permit

A permit application dated July 10, 2008, along with supplemental information dated August 5 & September 23, 2008, was submitted requesting a modification of the Part 70 operating permit for Maintrain Ethylene Production Facilities.

A notice requesting public comment on the proposed permit was published in The Advocate, Baton Rouge, Louisiana, on *[Insert Date]*. The proposed permit was also sent to US EPA Region VI.

The Maintrain Ethylene Production Facilities (Maintrain) currently operate under Permit No. 2031-V6, issued on July 6, 2007.

Project Description

BRCP proposed to increase the number of tubes in the SACC H furnace (EQT 691; S-08; OLA-2X Steam Cracking Furnace HF-01) allow the processing of more economical feeds.

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Permitted Air Emissions

Estimated emissions from Maintrain Ethylene Product Facilities in tons per year are as follows:

Pollutant	Permitted	Proposed	Change
PM_{10}	240.70	240.70	-
SO_2	11.47	11.47	-
NO_X	1551.78	1551.78	-
CO	1592.92	1592.92	-
VOC	251.95	251.95	-

VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
1,3-Butadiene	3.55	3.55	-
Acetonitrile	0.01	0.01	-
Benzene	9.51	9.51	-
Biphenyl	0.10	0.10	-
Cresol	0.18	0.18	-
Cumene	0.28	0.28	-
Ethyl Benzene	6.12	6.12	-
Methanol	0.87	0.87	-
Methyl Ethyl Ketone	0.08	0.08	-
Methyl Isobutyl Ketone	0.06	0.06	-
Methyl Tertiary Butyl Ether	0.01	0.01	-
n-Butly Alcohol	0.02	0.02	-
n-Hexane	10.55	10.55	-
Naphthalene	0.91	0.91	-
Phenol	0.15	0.15	-
Polynuclear Aromatic Hydrocarbons	<0.01	<0.01	-
Styrene	1.67	1.67	-
Toluene	6.03	6.03	-
Xylene (mixed isomers)	4.99	4.99	-
Total	53.88	53.88	

Other VOC (TPY):	198.07

Prevention of Significant Deterioration Applicability

There will be no projects in which emissions of CO, PM_{10}, SO_2, and H_2S change. Therefore, a PSD analysis is not required.

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Non-Attainment New Source Review (NNSR)

BRCP is located in a marginal non-attainment area under the 8-hour ozone standard. For existing major sources (VOC or NO_x greater than 50 TPY), the marginal classification has a 25 tons per year threshold value for a major modification, and a 25 tons per year trigger for consideration of the new emissions increases of NO_x and/or VOCs.

Project emission changes from the affected sources in tons per year are as following:

	SACC H OLA-2X furnace	Gas Turbine NG-01	Decoking Drum Vent	Project Emission Increases
	S-08	S-09	S-102	
PM_{10}	2.53	0.35	0.28	3.16
SO_2	0.06	0.01	0.01	0.08
CO	27.96	3.56	2.56	34.08
NO_x	20.74	10.93	-	31.67
VOC	1.84	0.11	-	1.95

The project increases were determined by calculating the maximum expected increase in furnace firing rate due to the installation of additional tubes on the SACC H furnace (Emission Point No. S-08) and the impact of additional utilization of the Gas Turbine NG-01 (Emission Point No. S-09) and the Decoking Drum Vent (Emission Point No. S-102). The NO_x emission increase associated with the project, without regard to any decrease, is greater than 25 TPY, thus a netting analysis is required.

A netting analysis is to determine the creditable increases and decreases in actual emissions during the contemporaneous period. The contemporaneous period is the period which includes the calendar year in which the proposed increase will occur, and the preceding four consecutive calendar years. An increase or decrease in actual emissions is creditable only if the Department has not previously relied on it in issuing a permit. The contemporaneous netting window for this project is January 1, 2004 to 4th quarter 2008.

Pollutant	Project Increases	Net Emission Increases	NNSR Significant Net Emission Increase
PM_{10}	3.16	NA	15
SO_2	0.08	NA	40
CO	34.08	NA	100
NO_x	31.67	-39.43	25
VOC	1.95	76.90	25

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A netting analysis of the contemporaneous period shows a decrease of 39.43 TPY in NO_x emissions. Thus the project nets out of Non-Attainment New Source Review (NNSR) for NO_x.

A netting analysis of the contemporaneous period shows an increase of 76.90 TPY in VOC emissions. BRCP cannot net out of NNSR for VOCs. The VOC emission increase of 1.95 TPY will be offset with internal offsets at a ratio of 1.5 to 1 for a total of 2.93 tons. LAER is not required since the increase is offset at a higher ratio. BRCP's 2.93 tons banked Emission Reduction Credits (ERC) will be used for the offset.

Hurricane Gustav resulted in process disruptions that impacted project execution schedules. The shutdown of the RGR gas turbine that generates the necessary NO_x reduction for this project to net out is delayed until the first half of 2009. BRCP will start to install the additional tubes on SACC H as soon as the permit is approved, with an enforceable condition to demonstrate that the emissions increase shall not occur until after the necessary NO_x credits are generated.

Type of Review

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, Louisiana Comprehensive Toxic Air Pollutant Emission Control Program, NSPS and NESHAP. PSD does not apply.

Streamlined Equipment Leak Monitoring Program

It is required that the Maintrain complies with a streamlined equipment leak-monitoring program. Compliance with the streamlined program shall serve to comply with each of the fugitive emission monitoring programs being streamlined, as indicated in the following table:

Unit or Plant Site	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
U-110 Maintrain Fugitives	40 CFR 63 Subpart UU as referenced by 40 CFR 63 Subpart YY LA non-HON MACT LAC 33:III.2122 40 CFR 61 Subpart V & J 40 CFR 60 Subpart VV	5% HAP 5% VOTAP 10% VOC 10% Benzene 10% VOC	40 CFR 63 Subpart UU as referenced by 40 CFR 63 Subpart YY

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Unit or Plant Site	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
U-46G DILA Fugitives for C_4/C_5 Loading	40 CFR 63 Subpart H 40 CFR 63 Subpart UU as referenced by 40 CFR 63 Subpart YY LA Non-HON MACT LAC 33:III.2122 NESHAP Sub J & V NSPS Subpart VV RCRA Sub BB & CC	5% VOHAP 5% HAP 5% VOTAP 10% VOC 10% Benzene 10%10% VOHAP VOC	40 CFR 63 Subpart H
U-47J ACLA Rack Fugitives for C_4/C_5 Loading	40 CFR 63 Subpart H 40 CFR 63 Subpart YY referencing 40 CFR 63 Subpart UU LA Non-HON MACT LAC 33:III.2122 NESHAP Sub J & V NSPS Subpart VV RCRA Sub BB & CC	5% VOHAP 5% HAP 5% VOTAP 10% VOC 10% Benzene 10% VOC 10% VOHAP	40 CFR 63 Subpart H

MACT requirements

These regulations define maximum achievable control technology (MACT) standards for stationary source categories of hazardous air pollutants (HAPs). These HAPs were listed in the Clean Air Act Amendments of 1990.

BRCP is a plant site that is a major source of HAPs because it has the potential to emit, in the aggregate, 10 tons per year or more of any hazardous air pollutant, or 25 tons per year of any combination of hazardous air pollutants. The subparts listed below contain applicable requirements to sources in this permit.

40 CFR 63 Subpart G
40 CFR 63 Subpart XX and YY

Air Quality Analysis

Air quality analysis is not conducted.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to draft permit AIR PERMIT BRIEFING SHEET, VIII.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to draft permit AIR PERMIT BRIEFING SHEET, IX.

Regulatory Analysis

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements of the proposed Part 70 permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Specific Requirements of the proposed Part 70 permit.

IV. PERMIT SHIELDS

No permit shield will be granted with the proposed permits.

V. PERIODIC MONITORING

No periodic monitoring is required.

VI. Glossary

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

National Emission Standards for Hazardous Air Pollutants (NESHAPs) - The NESHAPs were originally required by the 1970 Clean Air Act (CAA). These standards were developed for sources and source categories that were determined to pose adverse risk to human health by the emission of hazardous air pollutants (HAPs). The standards are set "at the level which ... provides an ample margin of safety to protect the public health from such hazardous air pollutant." These risk-based NESHAPs are located in 40 CFR 61. The NESHAPs program applies to all existing and new/modified sources. Congress directed EPA to develop a program

to develop further the regulation of HAPs in Section 112 of the 1990 Clean Air Act Amendments (CAAA). While the standards for major sources of HAPs developed per this section are also designated as NESHAPs, they are established according to Maximum Achievable Control Technology (MACT). These technology-based NESHAPs are located at 40 CFR 63.

Nitrogen Oxides (NO_x) - Compounds whose molecules consist of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: $\geq$ 10 tons per year of any toxic air pollutant; $\geq$ 25 tons of total toxic air pollutants; and $\geq$ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM_{10}- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO2) – An oxide of sulphur.

Title V permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.